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DOCKET NO. STMI07-02021

PATENT

Customer No. 30425



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: : FRANCK BADETS, ET AL.  
Serial No. : 10/603,579  
Filed : June 25, 2003  
For : VARIABLE PHASE SHIFTING CIRCUIT, PHASE  
INTERPOLATOR INCORPORATING IT, AND DIGITAL  
FREQUENCY SYNTHESIZER INCORPORATING SUCH  
AN INTERPOLATOR  
Group No. : 2816  
Examiner : Tuan Thieu Lam

MAIL STOP AMENDMENT

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

CERTIFICATE OF MAILING BY FIRST CLASS MAIL

The undersigned hereby certifies that the following documents:

1. Response to Restriction Requirement; and
2. Postcard Receipt

relating to the above application, were deposited as "First Class Mail", with the United States Postal Service, addressed to: MAIL STOP AMENDMENT, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on September 20, 2004.

Date: 9/20/04

Date: Sept. 20, 2004

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**MAIL STOP AMENDMENT**

Commissioner for Patents  
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Sir:

**RESPONSE TO RESTRICTION REQUIREMENT**

A Restriction Requirement was mailed in the present patent application on August 18, 2004 with time period for response ending on September 18, 2004. Because September 18, 2004 is a Saturday, the time period for response is extended to Monday, September 20, 2004.

In response to the Restriction Requirement, the Applicants elect the claims of Species A, Claims 1-3, for prosecution on the merits. The claims of Species B (Claims 4-13) and the claims of Species C (Claims 14-23) are withdrawn from consideration without prejudice.

The Restriction Requirement stated that "Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, claim 1 is generic." (August 18, 2004 Restriction Requirement, Page 2, Lines, 8-10).

The Restriction Requirement also stated that "Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added." (August 18, 2004 Restriction Requirement, Page 2, Lines 11-13). The following is a listing of all claims readable on elected Species A (Claims 1-3):

1. (Original) Variable phase-shifting circuit comprising:
  - an input receiving an input signal having a specified oscillation frequency,
  - an output delivering an output signal having said specified oscillation frequency (Fin) and having a variable phase shift with respect to said input signal,
  - at least one control input receiving a control signal which controls the phase-shift of said output signal with respect to said input signal,
  - a synchronized oscillator having at least a synchronization input coupled to said input of the variable phase-shifting circuit, at least an output coupled to said output of the variable phase-shifting circuit, said synchronized oscillator having a variable free-running oscillation frequency controlled by said control signal.

2. (Original) The circuit of claim 1, wherein the synchronized oscillator further comprises an astable multivibrator circuit having a first branch and a second branch arranged in parallel between a positive supply terminal and a negative supply terminal or ground, means delivering into the first branch and into the second branch, a respective quiescent current of the same specified value, said quiescent current being controlled by the control signal.

3. (Original) The circuit of claim 2, wherein, for each branch, the means delivering a quiescent current into the branch comprises a respective current source arranged in series in the branch, which delivers a current of a specified value, and in wherein the control signal is a current control signal which is added to said current of a specified value.

SUMMARY


If any issue arises, or if the Examiner has any suggestions for expediting allowance of this application, the Applicants respectfully invite the Examiner to contact the undersigned at the telephone number indicated below or at *wmunck@davismunck.com*.

The Commissioner is hereby authorized to charge any additional fees connected with this communication or credit any overpayment to Deposit Account No. 50-0208.

Respectfully submitted,

DAVIS MUNCK, P.C.

Date: Sept. 20, 2004

  
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